HRSA PRIORITY AREA #1: ADMINISTRATION

CRITICAL BENCHMARK #1: FINANCIAL ACCOUNTABILITY

Develop and maintain a financial system capable of tracking expenditures by priority area, by critical benchmark and by funds allocated to hospitals and other health care entities.

Minimal Level of Readiness: Awardees will expedite the obligation and flow of funds to intended sub-recipients in order to achieve the prescribed HRSA Critical Benchmarks and Minimal Levels of Readiness.

1. Please list the proposed activities that will occur in FY 04 under this benchmark.

The automated financial accounting system was established and operational in FFY03 and is capable of tracking expenditures by Priority Planning Area, by Critical Benchmark and by funding to hospitals and other health care entities, and, therefore the requirements of this critical benchmark have been met. All expenditures made with HRSA funds are tracked within the Commonwealth's automated accounting system, entitled Massachusetts Management Accounting and Reporting System. The overlay requirement to track expenditures by PPA and benchmark is a secondary overlay system, as all expenditures must utilize the Commonwealth's automated accounting system.

2. Please provide a timeline for completing each proposed activity.

This benchmark was achieved and will be maintained on an ongoing basis, by employees reimbursed via HRSA Cooperative Agreement funding. The Fiscal Coordinator and Assistant Fiscal Coordinator will continue to manage the activities of tracking expenditures by benchmark. The timeline will be ongoing, as data management to produce reporting in tracking expenditures by benchmark will require constant monitoring of HRSA obligated and expended funds. This benchmark and other fiscal initiatives are conducted by these FTE.

3. What is the proposed budget amount needed for this benchmark?

As budgeted in FY04 for the 12-month period beginning 9/1/04-8/31/05, the annual salaries paid for this activity total: \$110,808.

4. What challenges do you anticipate?

No barriers were encountered in implementing these activities, and none are anticipated in continued expenditure tracking.

HRSA PRIORITY AREA #2: SURGE CAPACITY

CRITICAL BENCHMARK #2-1: HOSPITAL BED CAPACITY

Establish a system that allows the triage, treatment and initial stabilization of 500 adult and pediatric patients per 1,000,000 awardee jurisdictions (1:2000), above the current daily staffed bed capacity, with acute illnesses or trauma requiring hospitalization from a chemical, biological, radiological, nuclear or explosive (CBRN&E) incident.

Minimal Level of Readiness: Number of beds which awardee is capable of surging beyond the current staffed bed capacity in a 24 hour period.

Establishment of comprehensive surge capacity to meet the benchmarks 2-1 through 2-10 require multi-disciplinary and integrated efforts to provide support for enhanced inpatient bed capacity. Many of these essential support activities may be described (and resources identified) under more than one CB when appropriate. Because some activities are referenced only in the HRSA/CDC Cross Cutting Areas, additional detail will be provided in the August 1st joint submission to CDC, HRSA and HHS. Where possible, references to these cross cutting activities are mentioned in this document and HRSA funding is identified. Appendix A (the budget template/narrative) provides the best high-level summary of how State Agency funded activities (Section A – Operations/Administration and Section E Awardee Wide Planning Activities) support the Section F Implementation of HRSA Priority Areas and Critical Benchmark Activities described in the following sections.

- 1. Please list the proposed activities that will occur in FY 04 under this benchmark
 - ➤ <u>Validation/updating of surge system data</u> to ensure that sufficient acute care surge beds are available. Data currently available from 2002 and 2003 will be updated and broken out by the 6 hospital planning regions to ensure the development of both regional as well as statewide surge system plans. Massachusetts data currently indicates the following surge capacity:
 - o POPULATION: 6,427,801 6.427 x 500 = 3214 beds needed (a 23.7% increase).
 - o TOTAL LICENSED BEDS (acute care) 15,423
 - o STAFFED BEDS 13,579 (Current Daily Capacity)
 - o ADDITIONAL BEDS NEEDED 3214:
 - 1884 beds available but not staffed (difference between licensed and staffed beds)
 - 1200 beds available via early discharge, cancellation of elective procedures, transfers of patients to other settings
 - 128 beds will need to be identified from additional sources (see below)
 - Provision of staffing for 5 Regional Hospital Committees to update and validate hospital data for licensed, available and staffed beds by bed type and the development of region-specific surge plans. The hospital regions will continue to refine their surge capacity with specific attention to determining exact numbers of pediatric vs. adult beds per region and documenting plans for opening beds that are currently licensed but not in use. Specific attention will also be paid to our geographically remote areas of Cape Cod and the Islands.
 - > Completion of updated surveys of capacity using tools either administered by AHRQ/HRSA (if available) or by an updated state survey similar to the one completed in 2002.
 - Establishment of capacity at the four state-owned chronic/sub acute hospitals to assist in receiving stabilized patients (both pediatric and adult) to

- assist with surge capacity building, isolation and quarantine.
- > <u>Development of FFY 2004 hospital funding agreements</u> that provide funding directly to hospitals to assist with enhanced bed capacity planning/implementation and for accomplishing benchmarks identified in all relevant CBs
- Development of FFY 2004 Community Health Center and VNA funding agreements to enhance CHC and VNA response roles. The following outlines examples of the activities to be completed: Become integrated in city, region and statewide response efforts; attend emergency planning meetings such as regional surge capacity planning meetings, LEPC meetings, statewide meetings, etc.; create outpatient surge capacity and triage planning: for example, develop protocols to accept outpatient cases redirected from other locations; purchase of needed materials. clarification and identification of staff roles; and education of community and patients.
- Development of Interstate Surge plan will be initiated through the HRSA New England/New York Regional group which now meets quarterly (further detail will be provided in the August 1st Cross Cutting submission).
- Development of Special Populations hospital surge needs The Special Needs Populations Disaster Preparedness Coordinator will work with the MDPH Surge Capacity workgroup and Regional Hospital Committees to identify potential surge bed capacity and protocols for pregnant women, infants born at high risk for developmental delays or with identified special health care needs, children with special health care needs, adults with disabilities or chronic conditions, elders, refugees and immigrants. The Coordinator will also provide an on-going presence at all CDC and HRSA emergency preparedness workgroups to advocate for special population awareness and inclusion, and assist in the provision of toll-free TTY services for technical assistance and information about access to emergency health services for the special needs population. (NOTE This Special Populations function cuts across several HRSA benchmarks and the CDC Bioterrorism cooperative agreement. Further details will be provided in the August 1st joint HRSA/CDC Cross-Cutting submission).
- Econtinue support for the enhanced terrorism-response functions of the regional (MA-RI) Poison Control Center (PCC), which provides essential services to hospitals and health care facilities in these states. The PCC will serve as a clearinghouse for information and will receive questions, information and exposure data from the public as well as health professionals; transmit data to the public, health professionals and public health officials with patient data transmission subject to all state and federal privacy laws; facilitate antidote acquisition for MA and RI hospitals as well as regional health care providers with the assistance of the Strategic National Stockpile (SNS) via our MDPH and RIDH liaisons; on a 24-hours-aday, 7-days-a-week basis, maintain the capability to report to MDPH and RIDH syndromic and diagnostic data that is suggestive of terrorism by using the AAPCC's toxic exposure surveillance system (TESS); provide education for PCC staff in principles of consequence management of bioterrorism, including recognition, treatment, reporting, and prophylaxis; participate in state level bioterrorism planning and exercises, where appropriate.
- 2. Please provide a timeline for completing each proposed activity.
 - ➤ Validation and updating of statewide and regional hospital bed data and surge metrics November 2004
 - Regional hospital planner contract positions hired to assist the hospitals develop and implement individual and regional surge plans and identify their specialized role in overall surge needs of the Commonwealth with a focus on increasing surge, isolation and staffing capacities in these facilities. September 2004
 - > Schedule quarterly statewide Surge Committee leadership meetings; ensure monthly/bi-monthly meetings for the six regional hospital planning committees are held. Ensure all hospitals have a surge plan drafted by January 2005. Complete regional Surge Plan compilation by July 2005.
 - ➤ Updated surveys (AHRQ/HRSA and/or state sponsored) October 2004
 - Quarterly meetings HRSA New England/New York Planning Group
 - ➤ Enhance State hospital surge capacity on-going

- ► Hospital funding allocation MOAs for FFY 2004 January 2005
- > Special Populations: All of the proposed activities are expected to be ongoing throughout the term of the overall project period. The Coordinator is expected to be hired by August 2004. An emergency preparedness and response manual entitled 'Directions for My Child's Care', which is for parents who have children with special health needs will be produced and made available via MDPH's website by October 2004, hard copies of this manual disseminated to area families by December 2004.
- ➤ Poison Control Center Provide FFY2004 funding by October 2004. Activities are on-going throughout the year.
- 3. What is the proposed budget amount needed for this benchmark?

A total of \$3,410,066 is budgeted in FFY04 to meet CB 2.1.

- \$2,342,566 will be allocated to the Commonwealth's 75 acute care hospitals with emergency departments in August, 2004
 - o Additional funding to meet other benchmarks as indicated below, and in attachment A, Section F will also be allocated to acute care hospitals. See other CBs for description of funding and services to hospitals
 - The formula used for Year One hospital funding allocations (base allocation plus a percentage of the total dollars available based on inpatient volume) is being revised for the allocation to hospitals slated for rollout in August 2004 using FFY2003 HRSA funds. This allocation revision from the Year One formula is based on hospital feedback. The revised formula will be based on a (1) hospital participation in specific activities such as serving as a LRN or sentinel laboratory, MDU deployment activity, CHEMPACK installation; (2) percentages based more heavily on emergency department volumes (total visits and admissions) than on inpatient data; and (3) a base amount that each hospital will receive regardless of size. An allocation plan will be developed for rollout of FFY04 HRSA funds, based on the success of the current allocation plan and will also consider the achievement of benchmarks.
- > \$237,500 will be allocated to the 4 chronic/sub-acute care state hospitals;
- ➤ \$300,000 to Poison Control Center;
- ➤ \$500,000 to Community Health Centers/VNA's
- ➤ \$30,000 for printing of information for Special Populations
- > (\$200,000 for web based emergency room diversion and bed availability system see CB 2-10 and CB 3, not included in the total for CB 2-1)
- 4. What challenges do you anticipate? None

Sentinel Indicator #2-1

As of 1 July 2004 the number of beds which awardee is capable of surging beyond the current staffed bed capacity in a 24 hour period.

There are 15,423 licensed beds in Massachusetts, of which 13,579 are staffed and presumed 100% occupied. Experience and surveys have shown that 1200 beds can be made available via early discharge, cancellation of elective procedures and transfers to other settings. To date, we have identified the ability to access an additional 1,884 licensed beds that are not staffed.

HRSA PRIORITY AREA #2: SURGE CAPACITY

CRITICAL BENCHMARK #2-2: ISOLATION CAPACITY

Ensure that all participating hospitals have the capacity to maintain, in negative pressure isolation, at least one suspected case of a highly infectious disease (e.g., small pox, pneumonic plague, SARS, Influenza and Hemorrhagic fevers) or for any febrile patient with a suspect rash or other symptoms of concern who might possibly be developing a potentially highly communicable disease.

In addition, the awardee must identify at least one regional healthcare facility in each awardee hospital preparedness region as defined by the awardee's FY 2003 work plan that is able to support the initial evaluation and treatment of a least 10 adult and pediatric patients at a time in negative pressure isolation.

Minimal Level of Readiness:

- 1. Seventy-five percent of participating hospitals have the capacity to maintain at least one suspect highly infectious disease case in negative pressure isolation.
- 2. Seventy-five percent of awardee regions will have identified and upgraded (if needed) regional healthcare facilities that can support the initial evaluation and treatment of at least 10 adult and pediatric patients at a time in negative pressure isolation.
- 1. Please list the proposed activities that will occur in FY 04 under this benchmark.
- Massachusetts will continue to refine and update its data on isolation capacity as it relates to pediatric vs. adult capacity.
- > To increase the isolation capacity in the Commonwealth, MDPH will work with the four state owned hospitals to receive patients (both pediatric and adult) that require isolation or quarantine.
- > Supplemental Isolation Capacity: Utilizing FFY 2003 funds, we are purchasing two portable isolation systems (one single bed and one 4-10 bed HEPA filtered negative pressure module). Initial purchase will be used to pilot deployment and use of units for health care facilities to increase adult and pediatric isolation capacity.
- > Planning for use of isolation rooms in a coordinated response will continue in the statewide and regional workgroups, and additional decisions made as to methods to enhance existing isolation capacity.
- 2. Please provide a timeline for completing each proposed activity.
- ➤ Completion of portable isolation pilot October 2004
- > Decision as to need to purchase additional isolation units or to provide direct funding to hospitals to enhance isolation capacity, based upon results of the pilot study November 2004.

3 What is the proposed budget amount needed for this benchmark?

A total of \$250,000 is budgeted for Isolation Capacity in FFY 2004. The proposal for funding may be allocated directly to select hospitals, or MDPH may directly purchase additional portable isolation systems A decision will be made based on the results of testing the pilot unit purchased with HRSA FFY 2003 funding. The amount budgeted under this benchmark for FFY 2004 will allow purchase of additional units with ancillary generators for operation.

4. What challenges do you anticipate?

We will need to address possible space problems within hospitals relative to the deployment of the larger (4-10 bed) portable isolation system.

Sentinel Indicator #2-2

As of 1 July 2004 the number of patients awardee has capability to hold in negative-pressure isolation above current daily capacity for airborne diseases, during a declared state/local/regional public health emergency.

There are 705 negative pressure isolation rooms in Massachusetts's hospitals, 77 of which have HEPA filtration of the exhaust. 94% of hospitals in Massachusetts have negative pressure isolation capacity, and each of the six hospital regions has at least one facility with the capacity to support 10 isolation patients.

HRSA PRIORITY AREA #2: SURGE CAPACITY

Critical Benchmark #2-3: HEALTH CARE PERSONNEL

Establish a response system that allows the immediate deployment of additional health care personnel in support of surge bed capacity noted in Critical Benchmark# 2-1. The number of health care personnel must be linked to already established patient care ratios noted by the awardee's Patient Care Practice Acts based on 24 hour operations.

This benchmark must describe how the personnel are recruited, received, processed and managed through the incident in accordance with the awardee system noted in CB #2-1.

Minimal Level of Readiness:

Awardees will have a response system that allows the immediate deployment of additional patient care personnel in support of surge bed capacity.

- 1. Please list the proposed activities that will occur in FY 04 under this benchmark
 - ➤ Validation of surge system personnel data and associated metrics to ensure that sufficient additional patient care personnel are available to support the additional 2012 beds identified as available but not staffed in CB 2-1 (1884 plus 128 beds). Using metrics provided in the HRSA guidance (NDMS system), Massachusetts will draft a state and regional response system that identifies the following additional patient care personnel for 2012 beds:

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Healthcare personnel (1:4) = 2012/4 = 503 providers x 4.2 FTE = 2112 staff needed Healthcare personnel (1:6) = 2012/6 = 335 providers x 4.2 FTE = 1407 staff needed
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NOTE: this is only for the 12 personnel per 50 patient ratio for direct care personnel (approx 1:4) which includes the physician (1), NP/PA (1), RN/LPN (6) and Nursing assistant (4) categories.

The remaining categories for other health care support personnel require 9 healthcare support staff per 50 patients (approx 1:5) which includes Medical clerks (unit secretaries) (2), and (1) each Respiratory therapist (RT), Case manager, Social worker, Housekeepers, Patient transporters) can be summarized as follows:

Healthcare support personnel (1:5) = 2012/5 = 402 staff x 4.2 FTE = 1690 staff needed

Additional needs for pharmacists; laboratory and radiology technologists have been identified and will be added to this list.

- The metrics for surge system additional personnel will be updated in concert with work being done for CB 2-1, and broken out by the six hospital planning regions to ensure the development of both regional as well as statewide surge personnel response system plans.
- Provisions for staffing of Regional Hospital Committees will facilitate the coordinated development of statewide and region-specific surge personnel plans.

- The above initiatives will be carried out in conjunction with the activities identified in CB 2-4 Health Care Personnel with specific attention to the incorporation of the 11 Medical Reserve Corps, 3 regional MMRSs, Community Health Centers, VNAs, and other parties that are working on the development and implementation of either advance registration, response and/or deployment of hospital and emergency medical personnel.
- Formation of a joint MMRS/MRC workgroup that includes the relevant boards of professional registration as well as medical, EMS, nursing, pharmacy and hospital and pre-hospital professional organizations that are also working on advance registration systems, credentialing, response rosters and deployment.
- > Training and re-orienting of emergency preparedness and bioterrorism-related skills for these additional personnel will be one focus of the Massachusetts Colleges On-Line e-Learning program described in CB 5.
- 2. Please provide a timeline for completing each proposed activity.
 - Establishment of joint workgroup for CB 2-3 and 2-4 October 2004
 - ➤ Validation of surge system personnel data and associated metrics in concert with work being done for CB 2-1- November 2004.
 - ➤ Initiate contracting process for surge advance registration staffing, credentialing, deployment and response- roster development activities identified in CB 2-3 and 2-4. October 2004.
 - > The six Regional Hospital Committees will facilitate the development of statewide and region-specific surge personnel plans to be completed by August 2005.
- 3. What is the proposed budget amount needed for this benchmark?

\$75,000 is budgeted in the FFY 2004 Continuation Application for the purpose of developing and implementing response rosters and deployment procedures for health care professionals as required meeting CB 2.3. This will be carried out in coordination with CB 2-4 Health Care Personnel (credentialing). Target groups will include the 11 MRCs, 3 MMRSs and other entities currently working on these initiatives in Massachusetts. A request will also be made to carryover the unexpended FFY 2003 HRSA funds from CB 2-3 in order provide sufficient resources for this project..

4. What challenges do you anticipate?

Difficulty in coordinating multiple surge advance registration-staffing, credentialing, deployment and response roster development activities funded by federal and state agencies with lack of coordinated guidance and variable focus on target medical and public health community activities. This should be resolved with additional guidance that is expected from HRSA in January 2005.

Sentinel Indicator # 2-3 a Is there a response system in place? (circle one)	Yes	No**
	**Every hospital has the abi	ility and plans in place to increase the
	hours worked of direct care	and support personnel in an emergency.
	In addition, there are 4 MRC	Cs and one MMRS that have created lists
	of healthcare and other person	onnel that can be activated.

Sentinel Indicator #2-3 b	# Do	ctors **	# Nurses **
As of 1 July 2004 the number of additional direct patient care	11 DO		" italises
	** Approxima	ntely 660 healthcare p	personnel can be activated by the 4
			ing the response system is a
deprojiment.			
	priority for the	e upcoming grant year	r.

HRSA PRIORITY AREA #2: SURGE CAPACITY

Critical Benchmark #2-4: HEALTH CARE PERSONNEL

Develop a system that allows for the advance registration and credentialing of clinicians needed to augment a hospital or other medical facility to meet patient/victim care increased surge capacity needs.

Minimal Level of Readiness:

Awardees will have established a plan for their state-base systems that allow qualified competent and licensed health care professional to work in an emergency situation throughout the awardee jurisdiction.

- 1. Please list the proposed activities that will occur in FFY 2004 under this benchmark
- MDPH proposes to enhance two primary programs that have begun to identify surge hospital and medical personnel for a variety of hospital and community surge needs. These are the 11 Medical Reserve Corps initiatives (nine of which were established late in CY 2003) and the three MA-based MMRS projects (Boston, Springfield and Worcester). These initiatives are funded through separate DHS and MRC programs, and not well integrated into a central system, nor are they focused on building additional HOSPITAL (as opposed to COMMUNITY) surge staffing in most cases. MDPH will utilize HRSA FFY 2003 and FFY 2004 funds to coordinate these initiatives and provide direct HRSA financial support to these initiatives to accomplish this goal to identify hospital surge staffing.
- > Since no formal statewide ESAR-VHP system has been established in Massachusetts, additional activities that will be undertaken include the formation of a joint MMRS/MRC workgroup that includes the relevant boards of professional registration as well as medical, EMS, nursing, pharmacy and hospital and pre-hospital professional organizations that are also working on advance registration systems, credentialing, response rosters and deployment systems.
- ➤ Identify existing relevant databases that have already been developed by the MRCs, MMRSs and other organizations and develop methods for ensuring that they are kept current and updated regularly.
- 2. Please provide a timeline for completing each proposed activity.
- ➤ Establishment of joint workgroup October 2004
- ➤ Validation of surge system personnel data and associated metrics in concert with work being done for CB 2-1- November 1st, 2004.
- ➤ Initiate contracting process for surge advance registration staffing, credentialing, deployment and response roster development activities identified in CB 2-3 and 2-4. October 2004.
- The six Regional Hospital Committees will facilitate the development of statewide and region-specific surge personnel plans to be completed by August 2005.
- 3. What is the proposed budget amount needed for this benchmark?

\$125,000 is budgeted in the FFY 2004 Continuation Application for the purpose of developing and implementing credentialing systems for health care professionals as required to meet CB 2.4. This initiative will be implemented in coordination with CB 2-3 Health Care Personnel (response/deployment). Target groups will include the 11 MRCs, 3 MMRSs and other entities currently working on these initiatives in Massachusetts. A request will also be made to carryover the unexpended FFY 2003 HRSA funds from CB 2-4 in order provide sufficient resources for this project..

4. What challenges do you anticipate?			
Difficulty in coordinating multiple surge advance registration-staffing, credentialing, deployment and response roster development activities funded by federal and state agencies with lack of coordinated guidance and variable focus on target medical and public health community activities. This should be resolved with additional guidance that is expected from HRSA in January 2005.			
Sentinel Indicator # 2-4 As of 1 July 2004 the number of volunteer health professionals	# Doctors (including physician extenders)**		
registered in the advance registration system.	# Nurses <u>**</u>		
	** Approximately 660 healthcare personnel can be activated by the 4 MRCs and the MMRSs. Coordinating the response system is a priority for the upcoming grant year.		
	# Behavioral health professionals - approximately 600 individuals are listed in the MDMH database (including social workers, psychologists, psychiatrists and therapists)		

HRSA PRIORITY AREA #2: SURGE CAPACITY

Critical Benchmark #2-5: PHARMACEUTICAL CACHES

Establish regional plans that insure a sufficient supply of pharmaceuticals to provide prophylaxis for 3 days to hospital personnel (medical and ancillary staff), emergency first responders and their families <u>as well as for the general community</u>—in the wake of a terrorist-induced outbreak of anthrax or other disease for which such countermeasures are appropriate.

Minimal Level of Readiness:

- 1. Seventy-five percent of participating hospitals will have pharmaceutical caches sufficient to cover hospital personnel (medical and ancillary), emergency first responders and family members associated with their facilities for a 72 hour time period.
- 2. Fifty percent of awardee jurisdictions or regions as defined in the FY 2003 application will have established community wide prophylaxis plans that are compatible with other existing state immunization or prophylaxis plans.
- 1. Please list the proposed activities that will occur in FY 04 under this benchmark.
- The Commonwealth is in the process of fielding 40 CHEMPACK containers across the state, beginning with 12 host hospitals in the greater Boston area (Phase I). The HRSA program will provide hospital costs for the initial 12 Phase 1 hospitals using FFY 2003 funds to be obligated by August 31, 2004. The remaining 28 hospitals will be funded from FFY 2004 HRSA allocations.
- > The MDPH anticipates the development of a pharmaceutical cache reporting system utilizing the either the web-based Massachusetts Alert Network system or the web based Emergency Department (ED) ambulance diversion system maintained by all hospitals with emergency departments. This system will provide the format for the generation of quarterly reports of pharmaceutical readiness within the Commonwealth available for response to either biological or chemical threats. This system will initially include those pharmaceutical assets provided to hospitals by MDPH in FFY 2003; expansion to cover other critical emergency pharmaceutical assets will be explored.
- > The MDPH intends to provide 6-10 Mark 1 kits to 450 hospital affiliated Advanced Life Support and Basic Life Support ambulance first responders. This will provide for force protection for hospital-affiliated EMS emergency first responders. Massachusetts currently has 421 ambulances registered to carry controlled substances, and these ambulance vehicles have hospital affiliation agreements and receive medical direction and pharmaceutical supplies from hospitals with whom they have affiliation agreements.
- 2. Please provide a timeline for completing each proposed activity.
 - Fielding 12 hospital CHEMPACK containers in greater Boston area by July 2004.
 - Fielding of the remaining 28 hospital CHEMPACK containers statewide should be completed by October 2004
 - > Pharmaceutical cache reporting system: anticipated completion date May 2005
 - Fielding Mark 1 kits in emergency vehicles: anticipated completion date March 2005
- 3. What is the proposed budget amount needed for this benchmark?
 - Fielding of CHEMPACK containers: The HRSA program will provide hospital costs for the initial 12 Phase 1 hospitals using FFY 2003 funds to be obligated to hospitals by August 31, 2004. The remaining 28 hospitals will be funded from FFY 2004 HRSA allocations. This is projected to average \$5000 per hospital for a total of \$160,000.

- Pharmaceutical cache reporting system: Development of this web-based reporting system will be funded as part of the ED ambulance diversion system funding identified in CB 3 Emergency Medical Services. An additional \$50,000 will be allocated from this CB for hospital-associated costs.
- Fielding of Mark 1 kits for hospital affiliated ambulance first responders: \$90,000.00 These pharmaceuticals will be purchased through the MDPH State Office of Pharmacy Services, and distributed to EMS first responders through their hospital affiliation.
- 4. What challenges do you anticipate?
 - > Fielding of CHEMPACK containers: none
 - > Pharmaceutical cache reporting system: members from all hospital pharmacy departments will require training to become familiarized with the program once developed.
 - Fielding of Mark 1 kits in emergency vehicles: none

Sentinel Indicator # 2-5

As of 1 July 2004 the number of hospital personnel (medical and ancillary), emergency first responders and their family members for whom a 3-day supply of antibiotics is available through state, local and regional caches.

Massachusetts as of July 1st has the capacity to offer a 3-day antimicrobial prophylaxis to approximately 150,000 hospital personnel, their family members, emergency first responders and their family members exposed to a biologic threat. 120,000 individuals can be treated because of the hospital caches distributed by MDPH and 30,000 because of the caches maintained by the Boston, Worcester and Springfield MMRS programs.

HRSA PRIORITY AREA #2: SURGE CAPACITY

Critical Benchmark #2-6: PERSONAL PROTECTION AND DECONTAMINATION

Each awardee must ensure adequate personal protective equipment (PPE) per awardee defined regions, to protect current and additional health care personnel, during a chemical, biological, radiological or nuclear incident. This benchmark is tied directly to the number of health care personnel the awardee must provide (CBM # 2-3) to support surge capacity for beds (CBM # 2-1).

Critical Benchmark #2-7: PERSONAL PROTECTION AND DECONTAMINATION

Ensure that adequate portable or fixed decontamination systems exist for managing adult and pediatric patients as well as health care personnel who have been exposed in a chemical, biological, radiological, nuclear, or explosive incident in accordance with the numbers associated with CBM # 2-1 & # 2-3. All decontamination assets must be based on how many patients/providers can be decontaminated on an hourly basis. The awardee should plan to be able to decontaminate all patients and providers within 3 hours from the onset of the event

Minimal Level of Readiness:

- 1. Awardees will possess sufficient numbers of PPE to protect both the current and additional healthcare personnel expected to be deployed in support of a bio-terrorism event.
- 2. Awardees will possess contingency plans to establish sufficient numbers of PPE to protect both the current and additional health care personnel expected to be deployed in support of a chemical and radiological event.
- 3. Awardees will possess sufficient numbers of fixed and/or portable decontamination facilities for managing adult and pediatric victims as well as health care personnel, who have been exposed during a chemical, radiological, nuclear or biological incident.
- 1. Please list the proposed activities that will occur in FY 2004 under this benchmark.
 - > CB 2-6 PPE All acute care hospitals in the Commonwealth, similar to FFY 2003 will receive funding for purchase of biological and chemical PPE.
 - ➤ CB 2-6 PPE Survey of PPE inventory-using tools either administered by AHRQ/HRSA survey (if available) or by an updated state survey similar to the one completed in 2002. Note: Baseline data on PPE amounts (biological and chemical) held by each entity has been requested. Preliminary data from each of the six hospital planning regions has been received. This activity will be for hospitals to achieve standardized levels of PPE and to assist them in meeting the benchmark. Priority will be placed on providing PPE for the approximately 4000 additional surge staff personnel identified in CB 2-3 above.
 - > CB 2-7 Decontamination continue the FFY 2003 initiative to ensure successful operation and deployment of 91 mass decontamination units assigned to protect every Massachusetts hospital with and emergency department. This funding ensures collaboration with acute care hospitals for training, exercises, restocking, deployment, set-up and use in an emergent event to maximize patient decontamination.
- 2. Please provide a timeline for completing each proposed activity.
 - > CB 2-6 Hospital purchase of PPE will receive funding for purchase of PPE for biological and chemical PPE. The FFY 2004 funding allocation to hospitals is expected by January 2005.
 - CB 2-6 PPE Survey of PPE inventory completed by October 2004.
 - ➤ CB 2-7 Decontamination January 2005.

- 3. What is the proposed budget amount needed for this benchmark?
 - For CB 2-6, \$1,000,000 will be expended during FFY 2004, by acute care hospitals in the Commonwealth for the purpose of PPE purchases.
 - For CB 2-7, \$315,000 will be expended to continue the hospital mass decontamination/fire emergency responder efforts
- 4. What challenges do you anticipate? None

Sentinel Indicator # 2-6 and # 2-7

- 1. As of July 1 2004 the number of health care personnel that can be adequately supplied with PPE for bio-related events.
- 2. As of 1 July 2004 the number of ambulatory and non-ambulatory persons that can be decontaminated per hour, for a 6 hour period.
- 1. A statewide survey is in progress in Boston (11 hospitals) the inventory of PPE is as follows 23,490 N95 masks, 10 Level A PPE, 325 Level B/C PPE, and 211 Other PPE (APR, PAPR, SCBA).
- 2. Conservatively, each the 91 MDU units can provide decontamination for 75 150 individuals per hour, or 6900-13,800 statewide/hour. Each unit has two ambulatory (male/female) and one stretcher lane.

HRSA PRIORITY AREA #2: SURGE CAPACITY Critical Benchmark #2-8: MENTAL HEALTH

Enhance the networking capacity and training of health care professionals to be able to recognize, treat and coordinate care related to the behavioral health consequences of bioterrorism or other public health emergencies.

Minimal Level of Readiness:

Awardees will identify the minimum behavioral health training competencies for health care professionals responding to bioterrorism or other public health emergencies.

1. Please list the proposed activities that will occur in FY 04 under this benchmark.

In FFY04 MDPH/HRSA will fund a total of \$511,214 to MDMH via an Interagency Service Agreement. An ISA is currently in effect with MDMH for \$445,967. MDPH proposes to continue the ISA agreement (3/1/04 - 2/28/06) or as long as continued HRSA funding is available for this activity. MDPH will continue to coordinate with MDMH the following objectives:

- Provide an on-going behavioral health presence at DPH emergency preparedness workgroups to ensure inclusion of mental health/substance abuse issues in all priority program areas, including but not limited to, surge capacity, education and training, workforce development, and risk communication.
- Develop a behavioral health emergency preparedness and response plan, which will include both mental health and substance abuse issues and be integrated with DPH all-hazards planning and initiatives at the state and regional level.
- MDPH and MDMH will, through its Disaster Mental Health/Substance Abuse Services Committee, consult with appropriate professional organizations to develop behavioral health components for hospital and EMS preparedness plans.
- MDMH staff will continue to provide consultation to MDPH in the development and maintenance of the MA Support website (http://www.mass.gov/samh) and the Disaster Mental Health/Substance Abuse Disaster toll-free telephone hotline.
- Through the previous year's ISA, funded via FFY03 HRSA award, MDMH developed and posted an RFR for 'Crisis Counselor' training to address behavioral health issues in the acute phase following a disaster. The successful vendor (to be selected in June 2004) will begin work on or about 7/1/04. Through this vendor, MDMH proposes to develop a model evidence-based curriculum, share that curriculum with HRSA for its Resilient Communities Guidebook, and train 75 Crisis Counselors per quarter. MDMH will work with MDPH to ensure all trained Crisis Counselors are credentialed. Crisis Counselor training will commence three months after the RFR award is made.
- With current FFY 2003 ISA funding MDMH will support the MDMH Director of Emergency Management in coordinating a wide range of emergency management and disaster preparedness activities; maintain related emergency management data; prepare emergency management and disaster mental health documents and reports; and provide education and technical assistance on related issues.
- In FFY 2004, MDMH proposes to provide analysis of Behavioral Risk Factor Surveillance Survey (BRFSS) data, which was collected in FFY 2003. Additionally, MDMH will provide analysis of other MDPH and MDMH emergency preparedness data and provide technical assistance to the various MDPH emergency preparedness workgroups.

2. Please provide a timeline for completing each proposed activity.

(Refer to bullets above)

- On-going
- ➤ A review-ready draft is expected by December 2004
- ➤ On-going
- ➤ On-going
- > The successful vendor will be selected by July 2004. Crisis counseling training will commence three months after the RFR award is made.
- On-going
- > Statistical analysis to begin by December 2004
- 3. What is the proposed budget amount needed for this benchmark?

The total \$511,214 is budgeted in the FY04 HRSA Continuation Application and will allow MDPH to continue its commitment to work begun during FFY 2003. During FFY 2003, utilizing HRSA funding, MDMH had developed protocols and criteria to create a program of psychosocial response and infrastructure. This application requests an additional year of funding, for \$511,214, which is will expended by MDMH via Interagency Service Agreement.

4. What challenges do you anticipate?

Initial delay of HRSA fund expenditure due to development of regional planning and the extensive needs assessments process, engagement of this project with MDMH was delayed, in deference to hospital funding allocations and due to initial delay in some of the MDMH program activity, implementation timelines were pushed back. However, no further delays are anticipated.

Sentinel Indicator #2-8

During the period of September 2003 to July 2004, the number of health professionals trained in the recognition, treatment, and referral of patients exhibiting behavioral health consequences related to bioterrorism or other public health emergencies.

During this period. MDPH/MDMH have trained approximately 460 health professionals in the recognition, treatment, and referral of patients exhibiting behavioral health consequences related to bioterrorism or other public health emergencies. Trainings were conducted at MA hospitals, community health centers, and local public health organizations. Internal MDPH/MDMH staff also received training.

HRSA PRIORITY AREA #2: SURGE CAPACITY

Critical Benchmark #2-9: TRAUMA AND BURN CARE

Enhance statewide trauma and burn care capacity to be able to respond to a mass casualty incident due to terrorism. This plan should ensure the capability of providing trauma care to at least 50 severely injured adult and pediatric patients per million of population.

Minimal Level of Readiness:

Awardees will have the capability of providing trauma and burn care to at least 50 severely injured adult and pediatric patients per million of population due to a mass casualty incident due to terrorism.

- 1. Please list the proposed activities that will occur in FY 04 under this benchmark.
 - There are currently nine (9) ACS verified trauma centers statewide that handle approximately 200 trauma cases per year. Three additional non-verified centers handle at least an additional 100 high-end trauma cases per year.
 - A Trauma Preparedness Coordinator will be hired to coordinate efforts with trauma centers and regional EMS providers. Quarterly meetings of the State Trauma Committee will be reinstituted as well as meetings of the trauma subcommittees as needed. The 2002 state HRSA Trauma assessment will be reviewed by the committee.
 - National TRACS software (approximately 10) and personal computers (approximately 19) will be purchased on behalf of trauma centers throughout the state. One TRACS software package will also be purchased for the state registry. The purchase of trauma registry software will allow hospitals and the MDPH to improve reporting and analysis of trauma and burn patients, improve resource allocation and serve as a tool for system wide evaluation. This system will allow the state to evaluate capability, develop plans to increase trauma and burn surge capacity and track incidents of terrorist attacks as well as MCI events.
 - A consultant on curriculum development will be hired to create a training to educate EMS trainers on NEMSIS software.
- 2. Please provide a timeline for completing each proposed activity.
 - > The Trauma Preparedness Coordinator will be hired September 2004.
 - > The State Trauma Committee will be convened by December 2004 and the Trauma Registry subcommittee will be contacted for consultation by October 2004.
 - National TRACS software and personal computers will be purchased by MDPH by December 2004. The Trauma Preparedness Coordinator will schedule 3 regional national TRACS trainings upon receipt of delivery date of software. The timeframe for training is pending vendor availability but is targeted for 12/04 3/05.
 - > DPH will evaluate data received by the state registry and create a working group to develop plans to enhance trauma and burn surge capacity June 2005 September 2005. Current inventories and resource allocation, including staffing, will be reviewed and analyzed.

3. What is the proposed budget amount needed for this benchmark?

A total of \$152,929 is requested in the FFY 2004 Continuation application for to meet this benchmark. Of this amount, \$46,189 is to be expended for a Consultant to the MDPH/HRSA program as the Trauma Preparedness Coordinator as outlined in section A.1 at a level of \$46,189. The Trauma Coordinator will oversee curriculum development and provide training for EMS providers. The remainder of the FFY 2004 funding request - \$106,740 - represents the ancillary programming/equipment costs to meet CB 2.9.

4. What challenges do you anticipate?

None

Sentinel Indicator # 2-9

As of 1 July 2004 the number of patients for whom the awardee is capable of providing trauma and burn care.

An estimated 200 beds for major trauma/burn care are available statewide for pediatric and adult patients as of July 1st, 2004. Bed count is based on reporting from ACS verified trauma centers in the state of Massachusetts.

There are 18 licensed burn beds in Boston, 2 in Worcester and an additional 30 burn beds at the Shriner's Burn Institute in Boston.

HRSA PRIORITY AREA #2: SURGE CAPACITY

Critical Benchmark #2-10: COMMUNICATIONS AND INFORMATION TECHNOLOGY

Establish a secure and redundant communications system that ensures connectivity during a terrorist incident or other public health emergency between health care facilities and state and local health departments, emergency medical services, emergency management agencies, public safety agencies, neighboring jurisdictions and federal public health officials.

Minimal Level of Readiness:

Awardees will have a secure and redundant communications system that allows connectivity among all agencies and healthcare entities responding to a terrorist event or other public health emergency.

- 1. Please list the proposed activities that will occur in FY 04 under this benchmark.
- Hospital Communications Plan Enhancement: The intent of this communications plan is to address and establish alternative and redundant communications systems in the event of a disaster. Direct-connect cellular/two-way radio phones and satellite phones will be provided to each acute care hospital with an emergency department and other emergency preparedness staff needed to make the Massachusetts Hospital Communications System operable. This includes EMS offices, CMED locations, the Department of Fire Services and the Massachusetts Emergency Management Agency. The following are the proposed activities for FY04 under this benchmark:
 - Purchase and pay monthly fee for fixed-unit w/rooftop antenna satellite phone system for hospitals as a redundant statewide communication system or as a primary back-up system for facilities that lack cellular reception (in particular, hospitals in western Massachusetts and Martha's Vineyard;
 - Ocontinue discussions with MDPH Alert Network staff regarding options, cost/service/function issues, and integration into the Homeland Alert Network and will ensure compatibility/interoperability with satellite phone system being purchased thru CDC funding for the state's CMED locations and those being purchased thru HRSA 03 funding for the hospital fixed-unit w/rooftop antenna satellite phone pilot.
 - o Continue to maintain and update the Emergency Contacts Directory and distribute to hospitals and public health officials statewide;
 - o Continue to routinely test a read-only, password protected website containing the Emergency Contacts Directory;
 - o Continue to utilize the remote communications system established through wireless laptop technology;
 - o Continue to utilize wireless communications devices distributed to all hospitals (with reception) and public health and safety organizations.
 - Continue to conduct individual follow-up (instruction, training, reprogramming of phones, replacement of phones/phone numbers when necessary) to increase participation in the statewide communications plan;
 - i. Continue to review and monitor accuracy of monthly phone charges/bills for units;
 - ii. Drill and test phone alerts via direct-connect, text messaging and the Health Alert Network. All cellular units purchased with FY03 funding were incorporated into the Alert Network in June 2004. This provides a redundant method of communication with all units purchased through HRSA funding.

(Note: the Massachusetts Hospital Association is contracted to provide the centralized oversight and payment of monthly bills for the Nextel hospital communications system, as well as the maintenance and updating of the communications protocols, advisories and directories).

> Statewide Conference Calls: These calls are scheduled and made to all hospitals, CMEDs and other emergency preparedness and response staff as needed during the year;

- EMS Communications: MDPH HRSA staff is working closely with the MDPH CDC staff to coordinate efforts to address EMS Communications. Nextel is planning to meet with CMED dispatch staff to determine the optimal solutions for cellular and direct-connect coverage at dispatch centers without interference with current communication equipment. The fixed-unit w/rooftop antenna satellite phones that will be purchased with CDC funding for the state's CMED locations will be the same interoperable units that HRSA-side funding will purchase for hospitals.
- **Website:** The Emergency Preparedness and Response website is updated and accessed on a daily basis to communicate information regarding emergency preparedness and response and HRSA-related initiatives thru the worldwide web.
- Listservs: The Emergency Preparedness and Response listservs are used on a daily basis to communicate information statewide and to discuss topics related to emergency preparedness.
- Ambulance Task Force (Strike Team) MCI Mobilization Communications System: (see also CB-3 Emergency Medical Systems) Negotiations are on-going to finalize access to an existing VHF repeated system with statewide coverage to serve as either an interim mutual aid radio network or to serve in conjunction with other long term system plans.

This effort is being pursued jointly by MDPH, the Department of Fire Services, the Department of Conservation and Recreation (system owner), the Massachusetts Emergency Management Agency and the Fire Chiefs Association of Massachusetts. This system can be employed immediately and can be strengthened over the course of one year to better serve the needs of a mass casualty incident. A four agency Memorandum of Agreement was signed in June 2004 and work will begin shortly to provide an engineering assessment of the VHF repeated system to determine what enhancements are needed to further improve the system. The Project will be a system analysis of the current Department of Conservation and Recreation's Statewide VHF (150 MHz) Communications System. The consultant will evaluate the current system by examining the system design, site locations and equipment. The Department of Conservation and Recreation has made Agency recommendations to upgrade equipment, expand the current site locations and enhance connectivity between sites and control points. The consultant will evaluate the agencies recommendations, and examine current system and site location connectivity. MDPH is funding the system assessment through its FFY 2003 ISA with the Department of Fire Services, and will expend \$250,000 from FFY 2004 to fund system enhancements based on the engineering assessment. Overall funding for system improvements will be a collaborative initiative among the four agencies that have signed the Memorandum of Agreement.

Specifications have been developed for the purchase of both UHF and VHF portable radio units that will work on this system. MDPH will utilize HRSA FFY 2003 funds to purchase UHF and VHF portable and mobile systems for the deployment of the 54 ambulance task forces. Two radios will be purchased for each ambulance task force (Task Force Commander and Alternate Commander) and as well as for each CMED, EMS the 5 Regional Directors and selected MDPH emergency personnel. Expenditure of HRSA funds for the purchase of 128 radios will occur by August 31, 2004

- 2. Please provide a timeline for completing each proposed activity.
- Purchase of the fixed-unit w/rooftop antenna satellite phone system for all hospitals, as a redundant statewide communication system or as a primary back-up system for facilities that lack cellular reception, occurring following a pilot of 20 hospitals should begin in August 2004. We plan to test and evaluate the pilot between September and December 2004. If successful, purchase of the remaining satellite units is anticipated to occur in January 2005. Purchase of these units following the pilot will be with HRSA FFY 2004 funding.

>	Nextel, hospital, EMS, website, Listserv and related communications items listed above are in place and are ongoing on a monthly basis.				
3.	. What is the proposed budget amount needed for this benchmark?				
>	Multiple initiatives are funded under this benchmark's line item. \$237,380 will allow purchase of 83 satellite telephones and monthly service, which will be provided to all 75 acute care hospitals in the Commonwealth. \$250,000 of this benchmark's requesting funding will support enhancement of existing communications towers for exclusive use by emergency response in an emergent event. \$70,000 will allow for internal purchase of telecommunications equipment/contracts/capability for healthcare leadership.				
4.	4. What challenges do you anticipate?				
>	A few hospitals have been reluctant to accept phones; others have not participated in weekly communication drills. We will continue to work on a one-to-one basis with these institutions to reach the goal of full participation in a statewide hospital communications plan. FY04 funding will be used to expand the fixed satellite phone project to remaining hospitals and for continuation of current communications projects. Similar challenges may occur in achieving full participation by the hospitals statewide for the rollout on use of the satellite phone portion of the statewide hospitals communications system.				
Se	ntinel Indicator # 2-10 a	Public Health X Local EOC X			
As of 1 July 2004 do hospitals have redundant communication		Law Enforcement Partial (Bristol County Sheriff's Office)			
sys	stems with: (check the appropriate organization(s))	Emergency Management X			
	ntinel Indicator # 2-10 b	Phones X Dedicated phones X			
As	of 1 July 2004 this communication system includes:(check all that	Fax X HAM radio			
apj	oly)	Email X Email X Fiber optics			
		Microwave radio Satellite phones(IN PROCESS for pilot			
		project and future expansion to all hospitals)			
		Health Alert Networks X			

HRSA PRIORITY AREA #3: EMERGENCY MEDICAL SERVICES

Critical Benchmark #3: Enhance the statewide mutual aid plan for upgrading and deploying EMS units in jurisdictions/regions they do not normally cover, in response to a mass casualty incident due to terrorism. This plan must ensure the capability of providing EMS triage and transportation for at least 500 adult and pediatric patients per million population.

Minimal Level of Readiness:

Awardees will have an established mutual aid plan for upgrading and deploying EMS units in jurisdictions they do not normally cover to ensure the capability of providing EMS triage and transportation for at least 500 adult and pediatric patients per million population.

- 1. Please list the proposed activities that will occur in FY 04 under this benchmark.
 - Medical supplies, equipment and PPE for EMS MCI events: MDPH will provide two additional MCI trailers (fully stocked) to supplement the 10 EMS MCI trailers purchased during FFY2003. These two additional trailers will be purchased after an evaluation is completed of the geographic needs of the 5 EMS regions. A full inventory of other MCI equipment caches purchased with other federal, state and local funds will also be conducted. Each trailer provides medical equipment for treating 50-75 patients.
 - EMS Ambulance MCI Task Force (Strike Team) Mobilization: Funding for EMS ambulance service participation on the 54 ambulance task forces (\$1000 per vehicle, for the 274 vehicles committed to a strike team) will come from the HRSA FFY 2004 budget. The 54 teams are distributed throughout the Commonwealth and include rural, suburban, urban, volunteer and third service providers. Negotiations are on-going to utilize an existing VHF repeated system with statewide coverage to serve as either an interim mutual aid radio network or to serve in conjunction with other long term system plans. This effort is being pursued jointly by DPH, the Department of Fire Services, the Department of Conservation and Recreation (system owner), the Massachusetts Emergency Management Agency and the Fire Chiefs Association of Massachusetts. This system can be employed immediately and can be strengthened over the course of one year to better serve the needs of a mass casualty incident. A four agency Memorandum of Agreement was signed in June 2004 and work will begin shortly to provide an engineering assessment of the VHF repeated system to determine what enhancements are needed to further improve the system.

Specifications have been developed for the purchase of both UHF and VHF portable radio units that will work on this system. MDPH will utilize HRSA funds to purchase UHF and VHF portable and mobile systems for the deployment of the 58 ambulance task forces. Two radios will be purchased for each ambulance task force (Task Force Commander and Alternate Commander) and as well as for each CMED, EMS the 5 Regional Directors and selected MDPH emergency personnel. Expenditure of HRSA funds for the purchase of 128 radios will occur by August 31, 2004 (see also CB 2-10 Communications).

Regional and state based transportation authorities will be added to the MCI committee. The state Comprehensive Emergency Management Plan and the Emergency Support Function (ESF) system include plans for activating transportation assets at the state and local level in the event of an emergency. Preliminary EMS MCI Modeling by the state EMS Medical Director has shown that 80% of patients will be category "green", and therefore may be appropriate for bus rather than ambulance transportation. (reference: Murphy MF, "Emergency Medical Services in Disaster", chapter 9 in Hogan DE, Burstein JL, **Disaster Medicine**, Lippincott 2002.) This assumption holds even for events such as mass bombings and Tokyo-style nerve agent exposures, where in fact the casualty split was even more skewed toward minor cases. (e.g., Tokyo less than 10% red/yellow). Using assumptions based on the literature, actual population data, the numbers of ambulances assigned to task forces (274) for "red" and "yellow" patients, and the CB-3 benchmark for an event that involved 3500 patients, we have calculated we would need 70 buses to handle the "green" patients.

- EMS Emergency Department Diversion Tracking System: The enhanced tracking system will be implemented by late July 2004. Refinement upon implementation will allow for real-time status updates, finer levels of capacity tracking, more detailed bed-type and availability, and the ability to add variables for tracking. The system will have an additional nine fields that permit tracking of beds in the following categories: M/S, Pediatric, Telemetry, ICU, Burn, Psychiatric, Isolation, Obstetrics, and Border. The system will be further expanded to allow for the tracking of hospital pharmaceutical caches as identified in CB 2-5.
- 2. Please provide a timeline for completing each proposed activity.
 - ➤ EMS MCI Trailers April 2005
 - ➤ Ambulance Task Force Mobilization October 2004
 - > UHF/VHF Radio Systems September 2004
 - ➤ Diversion Tracking System Enhancements on-going
- 3. What is the proposed budget amount needed for this benchmark?

A total of \$729.466 is requested in this FFY04 Continuation Application for multiple initiatives are planned to be funded under this benchmark. \$147,466 will allow purchase of two additional trailers containing significant medical equipment for statewide deployment in an emergent event. This funding amount will allow for the purchase of two additional purchases, adding to the FFY03 purchase of ten trailers/equipment and assigned to Regional Emergency Medical Services of the Commonwealth and host localities of the Region's throughout the Commonwealth. \$382,000 will support the Commonwealth's MCI Plan and Ambulance Strike Teams that have been developed through the plan. \$200,000 will continue support of the EMS Diversion Tracking System.

4. What challenges do you anticipate? None

Sentinel Indicator # 3 a As of 1 July 2004 the number of transport units (buses/vans/trailers/ambulances, etc.) available to respond to a mass casualty incident at any time.	3 a - There are 1,316 licensed ambulances in Massachusetts. Of these, 274 are assigned to the 54-ambulance task force (strike team) MCI mobilization teams. There are over 1000 buses available through Massachusetts Bay Transportation Authority (Greater Boston), over 100 paratransit (THE RIDE) vans for handicap transportation. There are 15 other regional transportation authorities geographically distributed throughout the state.
Sentinel Indicator # 3 b As of 1 July 2003 the number of patients awardee has the ability to provide triage and transportation to.	3 b - The 1,316 ambulances currently make approximately 1 million transports a year, of which 40-50% are "emergency" transports. Each EMS run can transport 2 patients (standard practice in MCI) from scene to hospital, and then return EMS unit to service within approximately 30 minutes.

HRSA PRIORITY AREA #4: LINKAGES TO PUBLIC HEALTH DEPARTMENTS

Critical Benchmark #4-1: HOSPITAL LABORATORIES

Implement a hospital laboratory program that is coordinated with currently funded CDC laboratory capacity efforts, and which provides rapid and effective hospital laboratory services in response to terrorism and other public health emergencies.

Minimal Level of Readiness:

- 1. Participating hospital labs will have protocols for rapid referral of clinical samples and associated information to appropriate labs operating in accordance with guidance in CDC Focus Area C and associated Critical Benchmarks.
- 2. Participating hospital lab personnel will demonstrate competency in determining what situations warrant the initiation of these protocols as well as competency in following the protocols.
- 1. Please list the proposed activities that will occur in FY 04 under this benchmark.

MDPH is achieving this Critical Benchmark by ensuring that hospital laboratories have trained personnel and equipment to conduct tests and refer specimens to the State Laboratory Institute (SLI) for rapid and confirmatory testing. To accomplish this goal a continuation of Wet Workshops and Packaging and Shipping courses will be offered, training materials will be distributed to hospital laboratories, and the SLI LRN medical technologist will travel to individual sentinel and confirmatory level laboratories to provide on-site assistance as follows:

- Continue to provide monthly Level A Wet Workshops and Packaging and Shipping courses (Aug 2004 July 2005)
- Continue to provide web-based proficiency module (Aug 2004 July 2005)
- Promote a Biological Safety Cabinets web-based training program (Aug 2004 July 2005)
- Develop and carry out a full scale hospital laboratory exercise program to evaluate laboratory communication and reporting, rule-in/rule-out testing capabilities and packaging and shipping capabilities of sentinel and confirmatory level laboratories (Aug 2004 July 2005)
- Provide funding for Sentinel and Confirmatory laboratories to register for a College of American Pathologists (CAP) proficiency program entitled Laboratory Preparedness Survey (LPS) to enhance hospital laboratories preparedness in responding to potential public health biothreat emergencies (survey consists of 2 annual shipments of five challenges of live surrogate organisms) (Aug 2004)
- Provide HRSA FFY 2004 funding to continue to support existing registered sentinel and Confirmatory Laboratories (December 2004)
- Provide HRSA FFY 2004 funding to increase the number of registered sentinel laboratories from 41 to 69 (December 2004?)
- Develop and distribute a second Bioterrorism Agents reference poster as well as new BT Agent flash cards for bench technicians (Oct 2004)
- Expand state wide delivery system of clinical specimens through UPS to all hospital laboratories (Nov 2004)
- ➤ Develop and Deliver Confirmatory Level Wet Workshop and training materials (Dec 2004)
- Deliver "Chemical Terrorism 101", a training program developed by CDC and the NLTN- to provide an overview of chemical agents that may be used in a terrorism incident and to train laboratories on appropriate specimen collection and shipping methods for chemical terrorism agents (Oct 2004- Aug 2005)
- Develop and distribute a reference poster for laboratories collecting biological specimens following a chemical incident (Jan 2005)
- Develop and distribute a Packaging and Shipping reference poster (Jan 2004)
- Identify community health center laboratories in the State and provide funding to register as sentinel laboratories (April 2005)
- > Develop and pilot a web-based results reporting system with 4 hospital laboratories (Sept 2004)

Minimal Levels of Readiness will be achieved through (1) distribution of training manuals, reference posters and flash cards, which outline protocols for rapid referral of clinical samples, and (2) demonstration of competency through completion of training courses, web-based proficiency module and participation in full-scale exercise.

2. Please provide a timeline for completing each proposed activity.

See above

3. What is the proposed budget amount needed for this benchmark?

A total of \$470,000 is budgeted in the HRSA FFY 2004 Continuation application. \$320,000 will fund an allocation plan to all participating hospital LRN laboratories; a survey has been conducted to identify those hospital laboratories that will participate in meeting CB 4.1. Additionally \$150,000 is planned for expenditure to support up to 3 sentinel laboratories in the Commonwealth. (Note – unless specified for HRSA funding, the above activities are to be carried out using CDC Bioterrorism FFY 2004 funds. Additional details for laboratory activities will be provided with the August 1st CDC submission.)

4. What challenges do you anticipate?

Achieving proficiency in all clinical laboratories for accurate rule-out / rule-in of bioterrorist agents.

Sentinel Indicator #4-1

As of 1 July 2004 the number of participating hospital labs that have personnel who are trained in the protocols for referral of clinical samples and associated information in accordance with CDC Focus Areas and Critical Benchmarks associated with laboratories.

As of 1 July 2004, 66 of 69 sentinel hospital laboratories have personnel who have attended an SLI Level-A Wet Workshop.

HRSA PRIORITY AREA #4: LINKAGES TO PUBLIC HEALTH DEPARTMENTS

Critical Benchmark #4-2: SURVEILLANCE AND PATIENT TRACKING

Enhance the capability of rural and urban hospitals, clinics, emergency medical services systems and poison control centers to report syndromic and diagnostic data that is suggestive of terrorism to their associated local and state health departments on a 24-hour-a-day, 7-day-a-week basis.

Minimal Level of Readiness:

Awardees will have an established surveillance system that allows rural and urban hospitals, emergency medical care services systems and poison control centers to report data that is suggestive of terrorism to their local and state health departments on a 24 hour-a-day, 7-day-a-week basis.

- 1. Please list the proposed activities that will occur in FY 04 under this benchmark.
 - ➤ MDPH will continue to expand its electronic laboratory reporting initiative to include additional hospitals.
 - > Provide funding for hospitals to prepare for electronic laboratory reporting to the Department of Public Health via PHIN-MS and HL-7 messages.
 - > IT staff at MDPH will continue to assist laboratory and LIS personnel with disk and electronic data submissions to enhance data transfer.
 - > Provide funding to implement LOINC and SNOMED coding systems in hospital lab information systems for all conditions reportable to the Department of Public Health under 105 CMR 300.000.
 - ➤ MDPH epidemiologists will analyze and report data to hospital participants through the *Active Surveillance Quarterly* (Project newsletter)
 - MDPH will provide an annual forum (*Third Active Surveillance Workshop/Conference*) for infection control practitioners, microbiology senior staff members, and information technologists to learn about surveillance activities and network with colleagues.
 - > MDPH epidemiologists will continue to arrange site visits with appropriate hospital and laboratory personnel to enhance active surveillance and electronic laboratory reporting.
 - MOU will be developed with appropriate MDPH agencies to address many aspects of emergency preparedness, only one of which will be the facilitation of the integration of hospital-based data into state level surveillance systems.
- 2. Please provide a timeline for completing each proposed activity.
 - > MDPH will continue to expand its electronic laboratory reporting initiative until all appropriate hospital laboratories are submitting data to MDPH electronically and in compliance with state and federal coding standards.
 - The *Third Active Surveillance Workshop/Conference* will be held in October 2004.
 - ➤ The MOU will be developed by October 2004.
- 3. What is the proposed budget amount needed for this benchmark?

\$150,000 will be allocated via contractual agreement to all 75 acute care hospitals with emergency departments in the Commonwealth to support patient surveillance reporting.

4. What challenges do you anticipate?	
Lack of resources and IT staff at hospitals inhibits full participation in SNOMED codes is also required. Otherwise, none.	n ELR activities. Additional guidance from CDC regarding LOINC and
Sentinel Indicator # 4-2 a	Hospitals 74 (for ED Diversion); 30 Hospitals are connected to the Health
As of 1 July 2004 the number of each type of entity (e.g., hospitals,	Alert Network
clinics, laboratories, emergency medical services systems and poison	Clinics
control center) that is connected to the state and/or local health	Laboratories: EMS systems: 306 (ED Diversion)
department.	Other
Sentinel Indicator # 4-2 b	Hospitals: 75 (lab data via fax./phone); 3 report electronically on a
As of 1 July 2004 the number of each of these entities that have the	daily basis
ability to report 24 hours/day, 365 days per year.	Clinics
	Laboratories: 2 commercial labs report electronically
	EMS systems 306 Other

HRSA PRIORITY AREA #5: EDUCATION AND PREPAREDNESS TRAINING

Critical Benchmark #5: Awardees will utilize competency based education and training programs for adult and pediatric pre-hospital, hospital, and outpatient health care personnel responding to a terrorist incident.

Minimal Level of Readiness:

Education and training programs for adult and pediatric pre-hospital, hospital, and outpatient health care personnel are competency based.

- 1. Please list the proposed activities that will occur in FY 04 under this benchmark.
- ➤ <u>HEICS, PPE and Decontamination</u> During the second year of the two year ISA with the Department of Fire Services Training Academy, the following training and development activities will be conducted:
 - o <u>Incident Command System for Health Care Providers Program</u> this is a one-day program, 2-3 programs will be offered per week, with 30 students per class. This program will be revised to include NIMS terminology
 - o <u>Hospital Personal Protective Equipment and Decontamination Program</u> this is a two-day program, 30 students per class. 1-2 programs per week
 - EMS Hazardous Materials Awareness and Incident Command System Program this is a one-day program, 30 students per class, 1 program per week. This program will be revised to include NIMS terminology.
 - o <u>EMS Personal Protective Equipment and Decontamination Program</u> this is a two day program. Modifications will be developed with Massachusetts College On-Line (see below) to provide one of the two days in an "on-line" web based format.
- ➤ The following additional training programs are being developed DFS for delivery during FFY 2004:
 - Community Health Centers: A one-day, eight hour training program will focus on two areas; Incident Command System for Health Care Providers (ICS-HCP) and Hazardous Materials and Personal Protective Equipment and Decontamination (PPE/Decon) in the health care setting. This program, specifically designed for Community Health Center staff, will be developed in August and the conducted in the Fall of 2004. This program will be delivered in two to four regions of the state, and repeated as necessary. The Hazardous Materials PPE/Decon component will provide an overview of hazardous materials in the community health center setting and an overview of personal protective equipment and decontamination. The program will concentrate on the role of Massachusetts Community Health Centers, in the event of a hazardous material incident, terrorist incident, or public health emergency.
 - o <u>Visiting Nurses Associations</u>: A similar ICS-HCP and Hazardous Material PPE/Decon programs will be developed for the VNA in and concentrate on their role in the event of a hazardous material incident, terrorist incident, or public health emergency.
 - EMT Paramedics: A two-week Advanced Life Support Response to Hazardous Materials Incidents program is scheduled in September 2004. This program has 24 participants and is conducted in collaboration with MDPH, the Department of Fire Services Training Academy and the National Fire Academy.

E-Learning Training Program - Development of a collaborative e-Learning system for healthcare and public health personnel through an ISA with Massachusetts Colleges On-Line. (MCO). MCO is a consortium of the 15 community colleges and 9 state colleges of Massachusetts. MCO supports expanded access to educational opportunities throughout the Commonwealth, benefiting students, faculty, higher education institutions and state agencies. MCO, the Department of Fire Services and Framingham State College developed a highly successful "proof-of-concept" course for a Radiation Awareness training course developed by MDPH emergency preparedness staff and the Department of Fire Services. Over 260 emergency first responders, healthcare and public health staff registered for the program within the first week, and successfully completed the program. As a result of this experience, MDPH proposes to utilize this program for the development of a wide range of e-Learning training programs specifically geared to delivering needed emergency preparedness skill enhancements to the approximately 4000 additional surge healthcare staff and support personnel that will be needed to provide additional capacity in the event of a biological, chemical or radiological terrorism or other public health emergency event.

This initiative will be coordinated, and integrated where possible, with a parallel "Local Public Health Training Institute" initiative being developed under the CDC cooperative agreement. Activities to be undertaken include the following:

- o Development of an ISA with Massachusetts Colleges On-Line for an e-Learning initiative for emergency training of healthcare personnel
- o Identification of priority training needs for healthcare, emergency first responder and public health personnel relative to HRSA priority areas for enhancing surge capacity (such as biologic/chemical/radiologic agents, infectious disease surveillance and epidemiology, isolation and quarantine, decontamination, mass casualty incidents, mutual aid, and incident management)
- o Identify subject matter experts within the HRSA and CDC programs to work with MCO on the development of curricula for prioritized training programs
- o Develop workplans and timelines for program development
- o Develop performance evaluation measures
- Develop marketing and outreach methods for enrolling eligible participants
- Radiation Awareness web based training program is planned for two deliveries during this time period. This program will be available to public health, health care and the first responder communities. Enrollments is limited to 200 person per offering, and the first offering will occur during September 2004 with the second to occur during May 2005.
- Fundamentals Course for Radiological Response, a three-day course, will be offered twice during this time frame. The program will be made available to healthcare personnel and public safety responders throughout the commonwealth. Enrollment targeted at 25 people per program. The first offering is planned for September 2004 with a second offering for the spring of 2005

Initial training and refresher training will be available to the MA Department of Fire Services Hazardous Materials Response Division, and other impacted agencies, on a variety of training issues. These training areas will include new equipment i.e. biological detection systems, sample collection, chemical detection and radiological detection as well as interagency operating protocols. It is expected that at a minimum, the 280 members of the 6 district hazmat teams will attend these trainings. These trainings will be conducted at various times during funding period, however training dates have not been established at this time

- 2. Please provide a timeline for completing each proposed activity.
- Department of Fire Services Training Academy ISA These programs are presented in MA hospitals and health care facilities on a repeated basis as requested by host health care facilities for the duration of the grant
 - o Incident Command System for Health Care Providers Program-6 hour program: Based on previous scheduling requests, it is projected that 3 programs will be conducted weekly.
 - o Hospital Personal Protective Equipment and Decontamination Program-12 hour program. Based on previous scheduling requests, it is projected that 2 programs will be conducted weekly.

These programs are presented as requested by host private, third service and municipal ambulance services for the duration of the grant. It is projected that one program per week will be conducted.

- o EMS Hazardous Materials Awareness and Incident Command System Program-6 hour program
- o EMS Personal Protective Equipment and Decontamination Program-12 hour program

Massachusetts Colleges On-Line ISA

- MCO ISA October 2004
- o Develop MCO infrastructure November 2004
- o Identification of priority training needs December 2004
- o Identify subject matter experts September 2004 January 2005
- o Develop workplans and timelines October 2004
- o Develop performance evaluation measures January 2005
- o Develop marketing and outreach November 2004
- o Begin offering programs January 2005

3. What is the proposed budget amount needed for this benchmark?

\$325,000 is requested in the FFY 2004 Continuation Application for the continuation of support of the existing Interagency Service Agreement between MDPH and the Commonwealth's Department of Fire Services to conduct a series of trainings to health care personnel across a broad spectrum and in a variety of modalities to ensure an educated workforce can be deployed in emergent events.

\$250,000 is requested in FFY04 Continuation Application to initiate the development of on-line e-Learning training programs through an Interagency Service Agreement between MDPH and the Commonwealth's Massachusetts Colleges On-Line program.

- 4. What challenges do you anticipate?
- Difficulty for hospital/health care facility in scheduling staff and replacement staff for staff to attend, which is the rationale for providing additional training opportunities via distance learning and web-based formats.
- > Cost to health care facilities for staff replacement
- > Overcoming employee training costs to hospitals, other health care facilities, and EMS services

Sentinel Indicator #5

During the period of September 2003 to July 2004, the number of health care personnel trained through competency-based programs annually.

Personnel Trained through 6/30/04

- ICS-HCP 648 trained
- Hosp PPE/Decon 114 trained
- EMS ICS-Hazardous Material Awareness 20
- Table Top Exercise: 225
- Isolation and Quarantine: 800
- Infectious Disease Trainings: 1450 live, 2200 CD-ROMS

HRSA PRIORITY AREA #6: TERRORISM PREPAREDNESS EXERCISES

Critical Benchmark #6: As part of the state or jurisdiction's bioterrorism preparedness plan, exercises/drills will be conducted during FY 2004. These exercises/drills should encompass at least on biological agent; the inclusion of scenarios involving radiological and chemical agents as well as explosives may also be included as part of the exercises/drills.

Minimal Level of Readiness:

Awardees will conduct terrorism preparedness exercises/drills that:

- Contain elements addressing the needs of special populations;
- Emphasize a regional approach; and
- Are conducted with other state, local and Federal drills and exercises to maximize resources.
- 1. Please list the proposed activities that will occur in FY 04 under this benchmark.
- ➤ <u>HRSA/CDC/DHS Collaborative Exercise Contract</u>: Included in this exercise plan will be an exercise focused on a biological agent, and there will be numerous other drills focusing on chemical, radiological, and explosive scenarios.
 - All exercises that will be undertaken will have the maximum participation from outside agencies. This is done first through our public safety partner, the Executive Office of Public Safety (EOPS), who brings key players to the table, including local police and fire departments, EMS, emergency management and others. A State Exercise Advisory Committee (SEAC), made up of important state and federal players, are committed to the success of this program.
 - Exercises include both adults and children and cover many different scenarios. These exercises include all of these issues during medication dispensing and decontamination of hazardous materials.
 - We work closely with our partners at the Department of Mental Health who will be present at these drills. Psycho-educational briefings and acute psychosocial interventions will be incorporated in any and all of the exercises conducted.
- ➤ <u>Hospital, DPH, EMS and CMED Nextel Drills</u> weekly exercises of the two-way direct connect cell phones will continue in the six hospitals and EMS regions.
- ➤ Other Hospital, EMS and Community Health Centers, VNAs Drills As referenced in various CBs, inter-disciplinary exercises and drills will be conducted for such activities as the Mass Decontamination Units, Ambulance Task Force (Strike Team) Mobilization, Emergency Dispensing Sites, Mass Casualty Incidents and other Surge-related activities. A master exercise and drill schedule will be developed by the new CDC/HRSA Exercise Coordinator recently hired via CDC Cooperative Agreement funds.

We will ensure that the drills/exercises are of sufficient intensity to challenge all responders, including management. Our goal is to test surge capacities at local hospitals, and risk communications plans for all entities involved.

2	Please	nrovide a	timeline	for	completing	each	nronosed	activity
∠.	1 ICasc	provide a	UIIICIIIIC	101	completing	Cacii	proposed	activity.

The following are drills and exercises currently planned for September 1, 2004 and August 31, 2005 period.

- October 30, 2004: Barnstable County Smallpox exercise. Vaccination of first responders with flu vaccine to simulate a smallpox dispensing site.
- November 13, 2004: Springfield Smallpox exercise. Repeat of Barnstable exercise
- November 17, 2004: Seabrook Nuclear Power Plant Functional Exercise. Test of the security and medical response to an attack.
- Sentinel Lab Drills: Test of the Rule In/Rule Out procedures for hospital labs around the state, in conjunction with the State Lab.
- Six HAZMAT tabletop exercises around the state, with one HAZMAT functional.
- Twelve Dispensing Site tabletop exercises around the state, with 10 functional drills.
- One State Laboratory functional, which is separate from the Sentinel Lab program.
- One SNS (Strategic National Stockpile) logistics tabletop, followed by a distribution functional. Test of how Massachusetts receives the shipment from CDC and prepares it for transport to treat citizens across the Commonwealth.
- 3. What is the proposed budget amount needed for this benchmark?

Funding to support the second year's contractual agreement of the exercise program is expected to be funded at \$2.0M, and is a collaborative effort in both project commitment and in funding source. Funding sources will be from multiple agencies, with HRSA Cooperative Agreement funding to continue to be obligated and is budgeted in the FFY04 Continuation Application at \$193,327. This assumes continued commitment as incurred with FFY03 funding from CDC Cooperative Agreement Funding of \$850,000 Executive Office of Public Safety funding of \$953,967 and HRSA FFY03 funding of \$163,812. As of this writing, the vendor contract is pending final budget negotiations, and a contractual agreement will be in effect by July 31, 2004.

4. What challenges do you anticipate? Coordination of an interagency exercise program is a challenge, and a contractual agreement for full implementation of the program is imminent.

Sentinel Indicator # 6 a As of 1 July 2004 the number of statewide or regional drills corried	6 (plug 20 wooldly Novtal hospital/EMS drills were conducted		
As of 1 July 2004 the number of statewide or regional drills carried	6 (plus 20 weekly Nextel hospital/EMS drills were conducted		
out during FY 2003 grant year.	between February 13, 2004 and July 1, 2004)		
Sentinel Indicator # 6 b			
Agents involved in drill.	Chemical Biological 3 Radiological 1		
	Nuclear Explosive Natural Disaster 1		
Sentinel Indicator # 6 c	EMS 2 Hospitals 1 Police 2		
Drills included the following:	FBI FEMA CDC		
Mas	Public health entries 3 Fire 2		
	Indian nations Dept. of Homeland Security		